**IN THE SPECIFICATION**

**Replace the paragraph beginning on Page 2, line 29, with the following amended paragraph:**

According to an exemplary embodiment of the present invention, ~~as set forth in claim 1,~~ the above object may be solved with a data processing device for performing a reconstruction of CSCT data, wherein the CSCT data comprises a spectrum acquired by means of an energy resolving detector element. The data processing device comprises a memory for storing the CSCT data and a data processor for performing the filtered back-projection. The data processor is adapted to determine a wave-vector transfer by using the spectrum and to determine a reconstruction volume. Furthermore, according to an aspect of this exemplary embodiment, geometry information may be used to determine the reconstruction volume. A dimension of the reconstruction volume is determined by the wave-vector transfer. Hence, for example, one dimension of the reconstruction volume may be determined by the wave-vector transfer. The wave-vector transfer represents curved lines in the reconstruction volume. The data processor is furthermore adapted to perform a filtered back-projection along the curved lines in the reconstruction volume.

**Replace the paragraph beginning on Page 3, line 19, with the following amended paragraph:**

According to another exemplary embodiment of the present invention, ~~as set forth in claim 2,~~ the spectrum data is acquired during a circular acquisition, where a source of radiation is rotated around an object of interest. Thus, for example, a CSCT scanner may be used for acquiring the data.

**Replace the paragraph beginning on Page 3, line 23, with the following amended paragraph:**

According to another exemplary embodiment of the present invention, ~~as set forth in claim 3,~~ the two further dimensions (apart from the first dimension, which is determined by the wave-vector transfer) are determined by two linear independent vectors of the rotation plane of the source of radiation. In other words, the two further dimensions of the reconstruction volume are, for example, determined by coordinates relating to positions of the radiation source.

**Replace the paragraph beginning on Page 3, line 29, with the following amended paragraph:**

According to another exemplary embodiment of the present

invention, ~~as set forth in claim 4,~~ a preprocessing is performed to compensate for an attenuation contribution. This may allow for improved reconstruction.

**Replace the paragraph beginning on Page 3, line 32, with the following amended paragraph:**

According to another exemplary embodiment of the present invention, ~~as set forth in claim 5,~~ a CSCT apparatus is provided for examination of an object of interest. The CSCT apparatus according to this exemplary embodiment of the present invention comprises a detector unit with an x-ray source and a scatter radiation detector. The detector unit is rotatable around a rotational axis extending through an examination area for receiving the object of interest The x-ray source generates a fan-shaped x-ray beam adapted to penetrate the object of interest in the examination area in a slice plane. The scatter radiation detector is arranged at the detector unit opposite the x-ray source with an offset with respect to the slice plane in a direction parallel to the rotational axis. The scatter radiation detector includes a first detector line with a plurality of first detector elements arranged in a line. The plurality of first detector elements are either energy resolving detector elements or

integrating (non-energy resolving) detector elements. Furthermore, there is provided a data processor for performing a filtered back-projection on first read-outs of the scatter radiation detector, wherein the data processor is adapted to determine a wave-vector transfer by using the first read-outs. Furthermore, the data processor is adapted to determine a reconstruction volume. A dimension of the reconstruction volume is determined by the wave-vector transfer. Furthermore, the wave-vector transfer represents curved lines in the reconstruction volume. Furthermore, the data processor is adapted to perform a filtered back-projection along the curved lines in the reconstruction volume.

**Please delete the paragraph beginning on Page 4, line 23.**

**Replace the paragraph beginning on Page 4, line 25, with the following amended paragraph:**

According to another exemplary embodiment of the present invention, ~~as set forth in claim 8,~~ a method of performing a reconstruction of CSCT data is provided, wherein the CSCT data comprises a spectrum acquired by means of an energy resolving detector element. According to this method, a wave-

vector transfer is determined by using the spectrum. Then, a reconstruction volume is determined. A dimension of the reconstruction volume is determined by the wave-vector transfer. The wave-vector transfer represents curved lines in the reconstruction volume. According to an aspect of this exemplary embodiment of the present invention, the filtered back-projection is performed along the curved line in the reconstruction volume.

**Please delete the paragraph beginning on Page 5, line 5.**